SAUK RIVER CED RETROFIT

JANUARY 31, 2005

INTRODUCTION

This Sauk River CED Retrofit site is approximately 300 feet in length and is located along the right bank of the Sauk River on State Route 530 (SR 530) near MP 59.3. SR 530 is a two-lane route that connects up to the North Cascades Highway via Darrington. This is the primary road in the area, which provides the transit route for local residents, timber products, and the important economic tourist traffic.

THE CED PROBLEM

The site has been subject to episodic streambank erosion since the early 1990's, attributable almost exclusively to its location relative to an actively migrating river. In October 2003 an early season flood eroded the bank to a near-vertical bluff extending to within one to three feet of the paved portion of the roadway. Two attempts at stabilization using "hard" (riprap) approaches have been attempted, most recently in November 2003. While these attempts have been moderately successful at forestalling catastrophic failure of the roadway, there is concern by WSDOT regional staff that maintaining the roadway in its current alignment will require substantial amounts of additional stabilization work, with no guarantee that roadway failure will not occur. In addition, the presence of Endangered Species Act-listed fish and the location of the site in a Wild and Scenic River corridor indicate that a permanent and ecological friendly solution is needed.

FISH UTILIZATION & HABITAT AVAILABILITY

The assessment reach is utilized by Chinook, coho, chum, pink, sockeye, bull trout/dolly varden, and steelhead salmonids. Other fish species found include sculpins, largescale sucker, and mountain whitefish. Habitat is available for spawning and rearing in the assessment reach, though no redds have been seen from the observation point along the roadway. The observed evidence of vertical and horizontal channel instability may reduce the quality of spawning habitat for mainstem spawners due to the propensity for redd scour. One side channel located immediately above the CED site has been identified as a high quality spawning area for chum salmon. This and other side channels form potentially high quality rearing habitat for coho and steelhead juveniles during the winter and spring while they remain "watered up". A scour hole forming at the base of the project site may provide good holding habitat for steelhead, spring Chinook, and bull trout adults provided there is sufficient depth and an influx of cover (e.g. LWD).

ONGOING WORK

A site and reach assessment has been conducted and the Integrated Streambank Protection Guidelines concepts will be used to address the overall project objectives. It is anticipated that the outcome of the project will result in meeting the necessary requirements to protect the bridge and public safety and provide environmental enhancements to this reach of the river. A funding request package to conduct this work is currently being developed.

Streambank damage at SR 530/Sauk River CED site; October 2003

Emergency repair work at site; 11/2003.

Streambank damage at SR 530/Sauk River CED site; November 19, 2003.